

2024 REPORT

State of Digital Operations

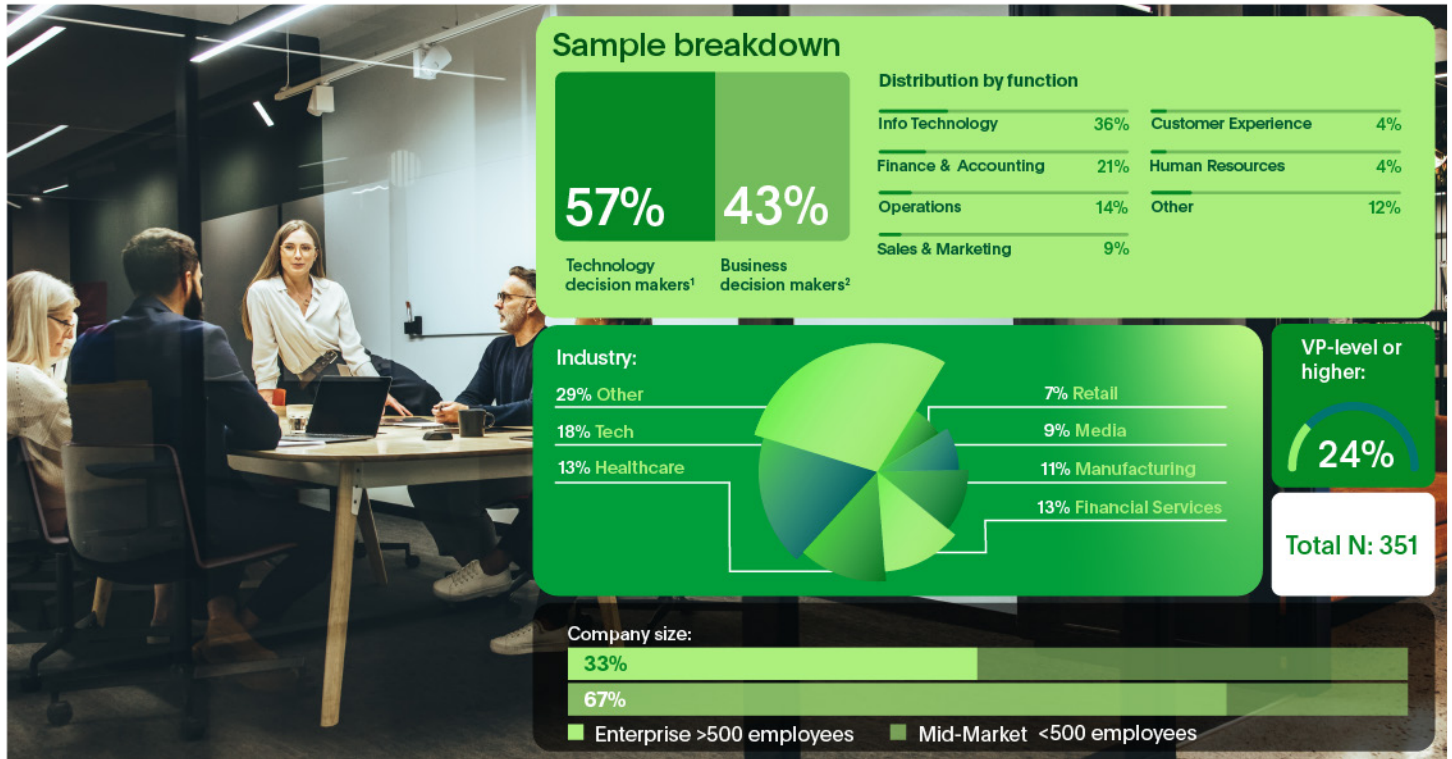
The year of action, transformation,
and AI adoption



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Introduction and Methodology



2023 was a challenging year for many businesses. Workforce reductions persisted, worries about inflation and interest rates moderated investments, companies continued to wrestle with the future of work, and global conflicts escalated. At the same time, markets had a banner year and consumer confidence reached an 18-month high by Q4. It felt like a year of driving with one foot on the brake and one on the gas.

One area where companies put the pedal to the metal: investments in AI and automation. While there were many reasons for the rapid adoption of AI and automation across industries, a universal motivation was the mandate to achieve “balanced growth”—simultaneously growing topline revenues and operating the business more efficiently. Given that all companies are working within this balanced growth framework, and that operational transformation has gone from “we’ll get to it” to “we’ll lose without it,” we wanted to talk to operational leaders about the challenges their businesses are facing and what they’re prioritizing as they set up for 2024.

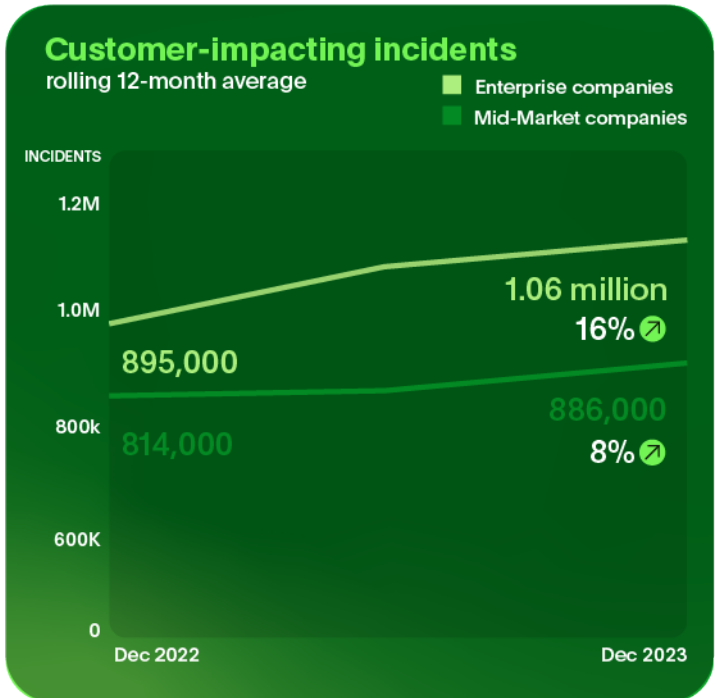
In PagerDuty’s 2024 State of Digital Operations, we did just that. We got the perspectives of over 300 business and IT decision makers at Enterprise and upper Mid-Market companies in the United States (see table above for sample details). These leaders know that to compete and win as a modern digital business, they must achieve operational efficiency in the context of large-scale business transformation.

Here’s what we learned from them, as well as from auditing incident data within the PagerDuty platform over the course of 2023.

Operational complexity is rising. We feel it and PagerDuty proves it.

As organizations have undergone operational transformation, there have been bumps in the road in the delivery of new IT services and digital experiences—particularly for Enterprise companies.

Analyzing PagerDuty platform data from nearly 20,000 accounts, one million users, and tens of millions of critical incidents, we discovered that customer-facing incidents are increasing at a rate of 12.5% year-on-year. This trend is even more pronounced for Enterprise companies, who saw a steeper (16%) increase on a higher baseline of incidents compared to mid-market companies (8%). This data reveals a clear challenge: as organizations strive for operational efficiency at scale, they are encountering higher levels of complexity and risk. To grow, companies must invest in tools and strategies for effectively managing this reality.



AI and automation are now core to operational infrastructure—though some industries are more ready than others to capitalize on these investments.

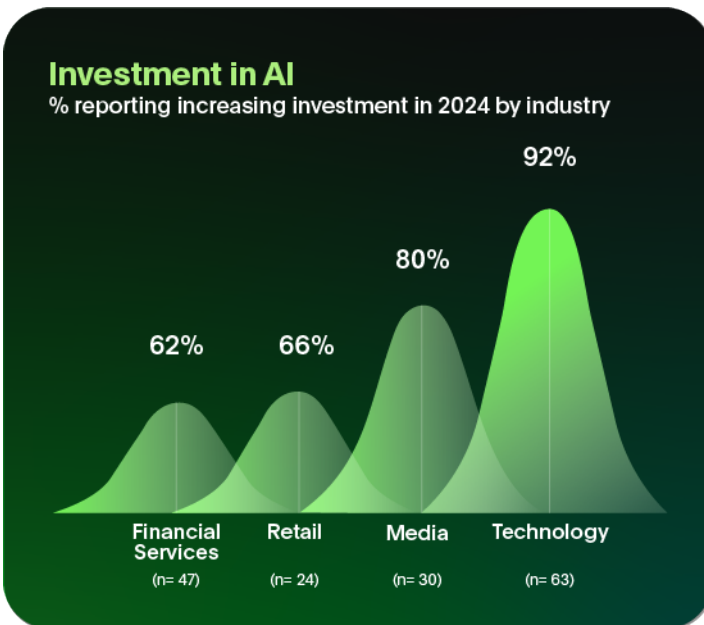
While the development of AI has been in the works for years, even decades, Generative AI and ChatGPT broke through last year. If 2023 was the year of AI exploration, then 2024 will be the year of action: According to Forrester, investment in AI software will grow 50% faster than the overall software market in 2024.¹

In our survey, 71% of respondents said that their company is looking to expand investments in AI and machine learning in the next year.

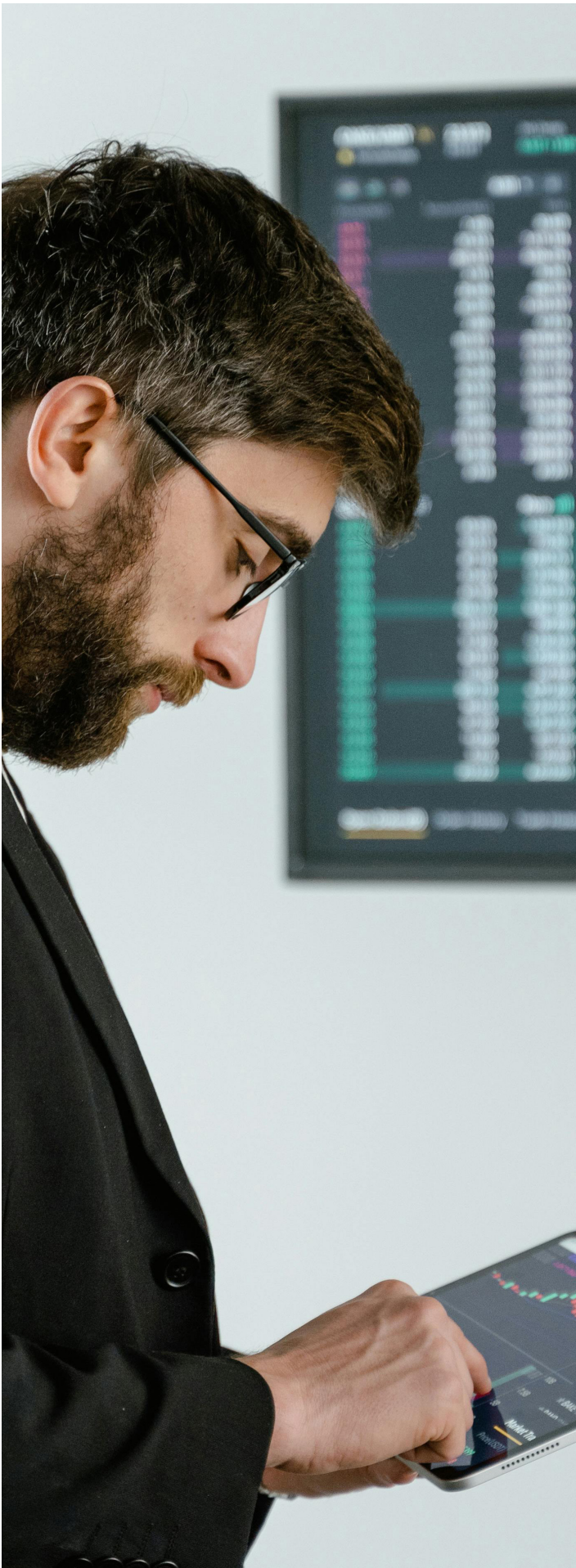
When we divide the responses by industry, Tech leads the way, with 92% of respondents reporting expansion. Media follows at 80%, with Retail and Financial Services reporting 66% and 62%, respectively.

The promise of AI includes, among other things, speed at scale. So, for an industry where gains and losses are made in milliseconds, why is Financial Services lagging behind? In short: it's complicated.

Harvard Business Review ponders whether AI can be democratizing or consolidating for the financial industry², particularly with respect to investment funds and strategies. It's a touchy subject with complex ramifications. Add to that the persistency of data privacy questions³ and it becomes clear that leveraging AI in secure, compliant ways is a considerable hurdle⁴ to overcome in the industry's adoption. Ultimately, the sensitivity of AI applications in finance, coupled with these concerns, may lead to a slower adoption rate compared to other sectors.



¹ https://go.forrester.com/wp-content/uploads/2023/07/Planning-Guide-2024_Technology-Executives_.pdf
² <https://hbr.org/2023/08/what-the-finance-industry-tells-us-about-the-future-of-ai>
³ <https://www.nasdaq.com/articles/maintaining-data-privacy-compliance-when-using-ai-in-finance>
⁴ <https://www.imf.org/en/Publications/fintech-notes/Issues/2023/08/18/Generative-Artificial-Intelligence-in-Finance-Risk-Considerations-537570>



Let's shift from AI to automation. 76% of respondents report that their company is pursuing automation of IT and/or business operations workflows.

Key automation challenges

Top answers to the question, "What are your organization's key challenges with automation?"

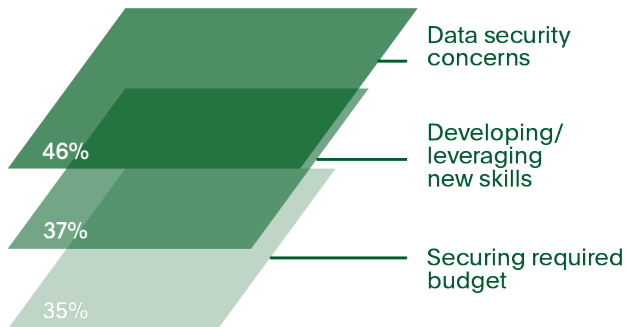
Data security concerns	34%
Securing required budget	29%
Identifying the right software vendor(s)	28%
Insufficient/ inaccurate data and guidance	21%
Lack of trust in replacing human capability	20%
Not knowing where to start	12%

That number is 92% for Technology companies. Financial Services comes in at 72%, Retail reports 67%, and Media lags at 63%. The gap between digital native organizations—largely in Tech—and digital laggards appears to be growing, as older companies are playing catch-up to upstarts with no tech debt or legacy business processes.

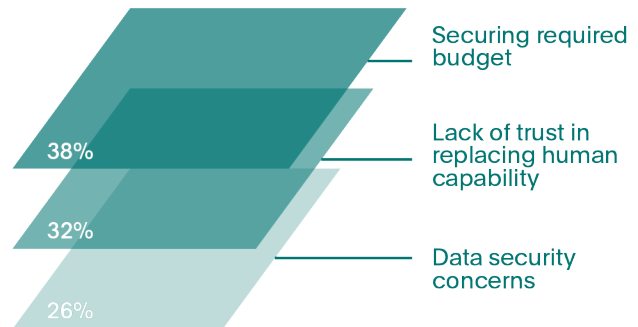
If more than three-quarters of companies are pursuing automation, why aren't we seeing a surge of adoption? Data security concerns were at the top of the list at 34%, mirroring those concerns of AI. Interestingly, only 20% of respondents cited a lack of trust in automation replacing human capacity.

Automation key challenges by industry

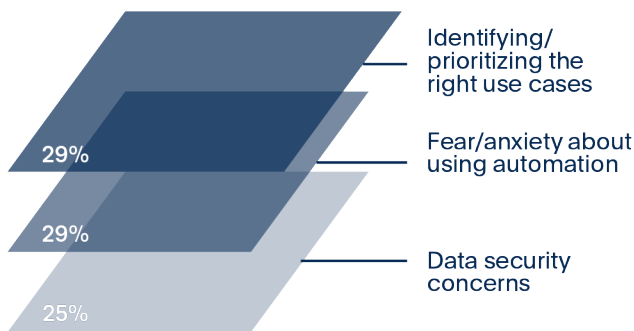
 Technology (n= 63)



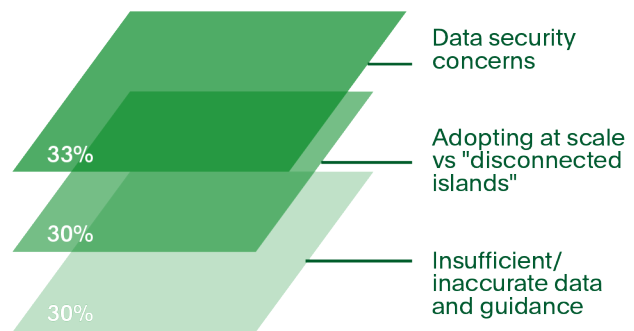
 Financial Services (n=47)



 Retail (n=24)



 Media (n=30)



While Media has made enormous strides in the digitization of content and processes, the sector remains a step behind other industries in the implementation of workflow automation. Furthermore, one of the top challenges for Media companies was adopting automation at scale. Data security ranked #1, aligned with other industries.

We posited that Financial Services will need time in its widespread adoption of AI, and the same may apply to Media and automation. The history of cloud computing⁵ illustrates that big players (Amazon, Microsoft, Google, etc.) debuted disruptive platforms in the early 2000s, with AWS launching in 2006. Nearly two decades later, cloud computing is still making advancements and remains a continual investment area for businesses (more on this later). Compared to an industry like Tech, where many companies' initial footprint was indeed digital and in the cloud, industries with legacy platforms—some of which are analog—aren't going to make that transformation overnight.

It helps to be able to start from a clean slate. Paul Cheesbrough, Chief Executive Officer of Tubi Media Group, part of the Fox Corporation, tells us, "In 2019, we were able to ask ourselves, if we were to build this today from scratch, how would an integrated broadcast-cable-digital-consumer operation look?"

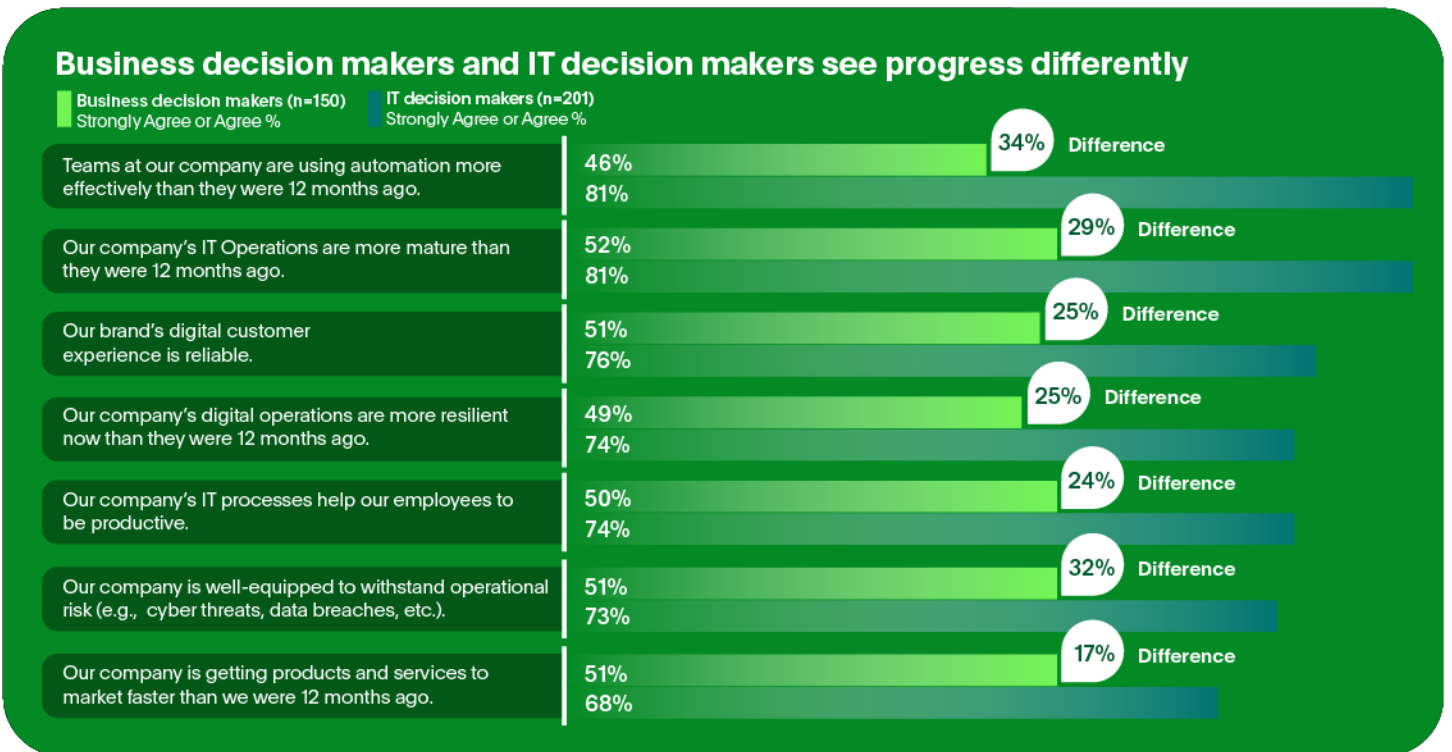
And we did just that with our operational center in Tempe. We invested in facilities, in platforms, and in the displacement of technology debt to make sure we are building on a strong foundation."

"Our operational center has become integral to our business—a strategic capability. If you go to most media operations centers you get racks and racks of hardware. Ours is predominantly software-based, built around a very open, flexible data architecture running on the Amazon Web Services network backbone. We're connected directly into their infrastructure, which reduces the latency for moving video around."

Rapidly transforming infrastructure from analog to digital is not an option for most media companies—let alone instituting advanced rules around automation. While there are cross-industry discrepancies, it's clear that AI and automation are now viewed as strategic levers to drive operational efficiency, with 2024 as the year to implement and expand those efforts. They are no longer experimental areas—they are table stakes. Yet one key finding, explored next, suggests that business and IT leaders still need to work to get on the same page in order to drive continued growth and transformation.

⁵ <https://www.dataversity.net/brief-history-cloud-computing/>

When asked to assess their digital operations, the Business and IT see progress very differently.



When asked to what extent they agreed with a number of statements about their organization's transformation, IT leaders report greater progress than business leaders. We believe that IT teams' proximity to – and pride in – the work of digital transformation translates to a bias in reporting in favor of more progress.

The impact may very well be there. In many cases, IT organizations need to do a better job demonstrating the value they've driven, backing up their claims with clear evidence and data. In some cases, there may be differing expectations and diverging views. Either way, there's a stark difference in perception among these groups of leaders.

In particular, a 24-point gap in "Our company's IT processes help our employees to be productive" stands out. Yes, some IT employees are end users, but the fact that only half of business leaders agree with this statement is notable.

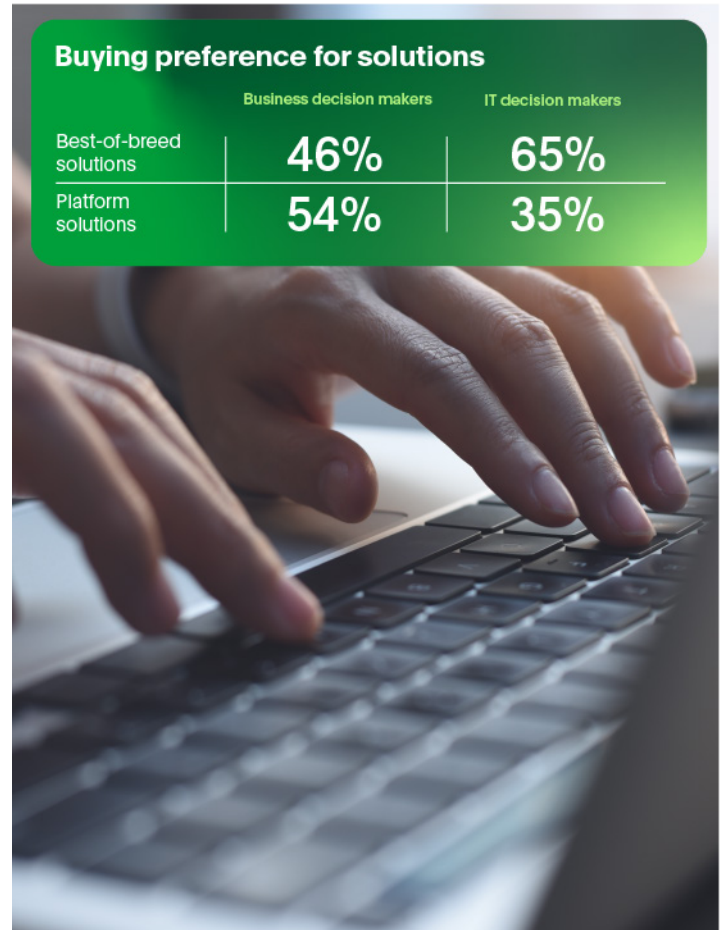
Putting the discrepancies between the Business and IT aside, the raw scores from business leaders are low. This indicates a sizable opportunity across critical areas of any business, including customer experience, operational resilience and maturity, and go-to-market velocity.

State of Digital Operations

Variance between business and IT leaders was also highlighted in the context of their respective buying preferences. Business leaders indicated a preference for purchasing for platform solutions (54%) over best-of-breed products (46%), while IT leaders preferred best-of-breed solutions (65%) over platform solutions (35%).

Historically, IT provided expertise in selecting best-of-breed tools for their teams and stakeholders. However, amidst trends like DevOps and consumption pricing, more teams have been empowered to choose their own tools, and IT is often in a company-level oversight role. Now, business leaders are prioritizing bottom-line efficiencies. They often view platform solutions as strong investments that can scale over the long term, even if a best-in-breed product is better in the short term. Each side needs to listen to and learn from the other in order to equip the organization with the technology it needs to drive and sustain a successful transformation.

Regardless of their differences, business and IT leaders are on common ground when it comes to the most important business priorities.



All agree on the priorities of reducing risk, growing revenue, and building operational resilience.

We presented leaders with eleven business imperatives and asked them to rank their top three priorities.

With our overall sample, improving security and reducing risk was most commonly among a respondent's top three choices (45% of respondents) and most commonly a respondent's top choice (29%, significantly ahead of the pack).

Supporting revenue growth and building operational resilience are next in line as a top three choice. Improving customer

experience ranked highly for the business decision makers, landing in 39% of these leaders' top three choices—but three out of the top four choices remained the same.

This all tracks: In a bottom-line business context, these goals resonate across teams and industries. These foundational areas are key to setting up organizations for future success.

"Central to our strategy, we've put our team's capabilities, facilities, and platforms in place to power and support this level of operational integrity," Cheesbrough tells us. "You'd be surprised how many of the issues go away once you put that foundation in place."

"Building on this position of operational integrity has allowed us to really focus on the needle movers on revenue. It's given us the time and air space to do the more glossy shiny stuff. Our velocity has improved; our creativity has improved. The team thinks about improvements to existing products and new products to launch. We're continuing to raise the bar on world-class services we deliver to our customers," he continues.

Now let's dive into two long-standing areas of investment that proved important in both business prioritization and budget planning for 2024.

Top operations priorities for business leaders

IT decision makers	Business decision makers
1 Improving security and reducing risk	1 Improving security and reducing risk
2 Supporting revenue growth	2 Improving the customer experience
3 Building operational resilience	3 Building operational resilience
4 Improving employee productivity	4 Supporting revenue growth

other operations priorities

- Reducing operational costs
- Supporting cloud adoption
- Improving the customer experience
- Driving more pervasive automation
- Achieving compliance with regulations
- Reducing time to market / innovating faster
- Driving platform consolidation

To support those future priorities, budgets are trending up.

When asked about planned budgets for IT modernization, 57% of respondents say that their 2024 budgets will be higher than they were last year. Only 16% report that budgets will be lower than last year. In a macroeconomic environment where many budgets are being slashed or restructured⁶, it is notable that IT Operations are still being resourced, especially in Tech (and industries whose business models are essentially those of tech companies), Financial Services, and Media.

Of note is that just 38% of Retail respondents report that their IT Operations budget will increase in 2024. It's no secret that Retail has faced considerable challenges over the past few years, needing to modernize and transform legacy platforms while battling supply-chain and labor shortages. The physical infrastructure transformation related to supply-chain and manufacturing operations may have greater immediate investment requirements and longer payoff periods than most digital operations⁷— as such, retailers may have bigger fish to fry than IT transformation, at least relative to other industries.

Overall, the budget picture heading into 2024 isn't as dire as some headlines would lead us to expect.

Now let's dive into two long-standing areas of investment that proved important in both business prioritization and budget planning for 2024.



About planned budgets for IT modernization in 2024



57% say they will be higher than last year



16% say they will be lower than last year

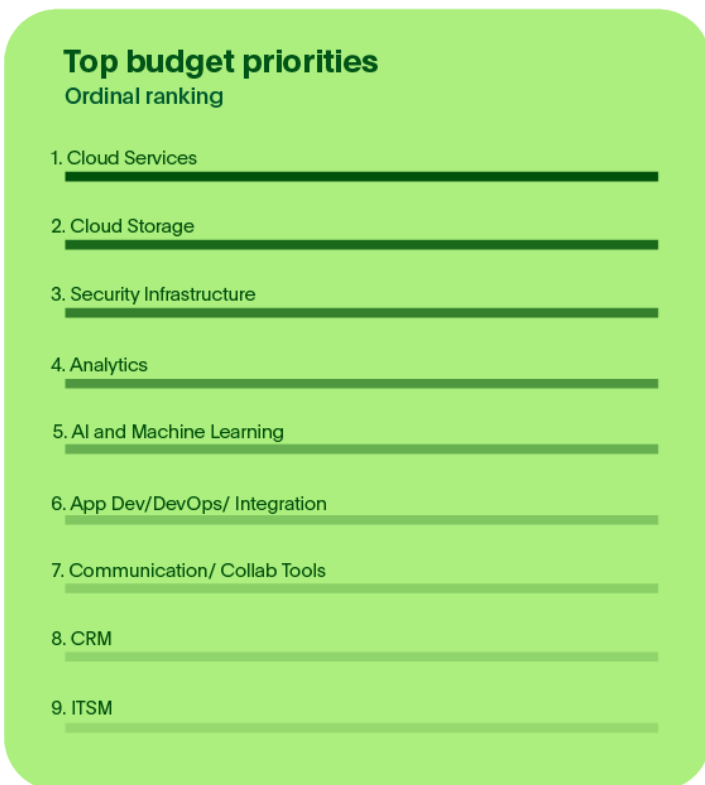
⁶ <https://www.cio.com/article/657885/many-cios-are-better-equipped-to-combat-rising-it-costs-are-you.html>

⁷ <https://www.bain.com/insights/how-to-boost-supply-chain-resilience-infographic/>

Follow the money: Security and cloud infrastructure are budgeted priorities.

We touched on organizations' willingness to expand their investment in AI and ML. While they scored high, the top performers are actually "old" standbys: security and cloud infrastructure. These two areas also ranked highly in our question about prioritization.

73% of respondents said that their organizations will be expanding or significantly expanding their investments in security infrastructure. As a reminder, AI and ML checked in at a strong 72%.



The highest performers were cloud services and cloud storage, coming in at 77% and 75%, respectively. As one may expect, these categories scored particularly well in Media, considering the industry's volume of data and content to store and secure.

So while AI, ML, and automation are certainly in vogue, the dedication and focus on cloud and security infrastructure still has that potent combination of business importance and dedicated budget. They've stood the test of time because they are foundational elements to any IT organization and digital business.

But there's also a timeliness element to their continued relevance. As workforces have become decentralized and turnover has increased due to layoffs and restructurings (in some instances, related to the advancements of AI), security has been further tested and reliance on cloud infrastructure has increased. All the change management creates unique challenges⁸ for companies hoping for smooth transitions and protection of proprietary data and systems—and many times, occurring in a hybrid or remote environment or systems and tools.

And so, security and cloud investments remain both timeless and timely—modern classics of the IT world.

⁸ <https://venturebeat.com/security/how-mass-layoffs-can-create-new-risks-for-corporate-security/>

Conclusion: Key takeaways and priorities for 2024

To recap, here are our main takeaways from this year's report:

1. Operational complexity is rising, particularly in the Enterprise.
 - Incident volume within Enterprise companies rose by 16% during 2023.
2. Automation and AI are now core to operations—2024 will be the year of action and implementation of these solutions.
 - 71% of respondents report expanding investments in AI and machine learning in 2024.
 - 76% of respondents are pursuing automation of IT and/or business operations workflows.
3. Business and IT decision makers don't see eye to eye, as Business leaders have a dimmer view of the progress towards digital operations health than their IT colleagues.
4. All decision makers agree on the importance of the 3 Rs: risk, revenue, and resilience.
5. Budgets for IT Operations are trending upwards.
 - 57% of respondents say that their 2024 budget will exceed that of 2023.
6. Security and cloud infrastructure remain both timeless and timely as continued areas of investment.

If something is important enough, organizations can make it happen—especially if we collectively learned lessons and tactics in 2023 that made us more resourceful and efficient. The operational priorities are clear coming out of this survey: risk, revenue, and resilience. Leaders will need to clearly articulate their priorities to their teams (and peers, especially across TDM and BDM roles), empower them with the solutions to efficiently deliver on those priorities, and map out a future vision that increasingly leverages AI and automation in ways that are salient to their specific industry and business.

PagerDuty can be instrumental to bringing that vision to life. Risk reduction, revenue protection, and operational resilience are precisely the outcomes for which the [PagerDuty Operations Cloud](#) is built. Nearly half of the Fortune 500 and almost two-thirds of the Fortune 100 trust PagerDuty to transform operations and move business forward faster through incident management, AIOps, process automation, and customer service operations.

We believe the organizations that invest in the right platforms to mitigate risk, build resilience, and grow and protect revenue will look back on 2024 as a watershed year in the transformation of their digital operations.

About PagerDuty

PagerDuty, Inc. (NYSE:PD) is a leader in digital operations management. In an always-on world, organizations of all sizes trust PagerDuty to help them deliver a better digital experience to their customers, every time. Teams use PagerDuty to identify issues and opportunities in real time and bring together the right people to fix problems faster and prevent them in the future. Notable customers include Cisco, Cox Automotive, DoorDash, Electronic Arts, Genentech, Shopify, Zoom and more.

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